Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
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Ann Jennings
Secretary of Natural and Historic Resources

David K. Paylor
Director
(804) 698-4000

James J. Golden
Regional Director

October 12, 2021

Mr. James A. Christina
Vice President and General Manager
Chaparral (Virginia) Inc.
25801 Hofheimer Way
Petersburg, Virginia 23803

Location: Dinwiddie County
Registration No.: 51264

Dear Mr. Christina:

Attached is a minor modification to your Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning October 12, 2021.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on September 7, 2021.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Chaparral (Virginia) Inc. of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact the regional office at (804) 527-5020.

Sincerely,

Kyle Ivar Winter, P.E.
Deputy Regional Director

KIW/clm/51264-13 Chaparral (Virginia) Inc. Title V Minor Modification

Attachment: Permit

cc: Chief, Air Section (3ED21), U.S. EPA, Region III (electronic file submission)
Manager/Inspector, Air Compliance (electronic file submission)

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Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee/Facility Name:	Chaparral (Virginia) Inc.
Facility Location:	25801 Hofheimer Way Petersburg, Virginia 23803
Registration Number:	51264
Permit Number:	PRO51264

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (pages 4 through 49)

October 2, 2019
Effective Date

October 12, 2021
Modification Date

October 1, 2024
Expiration Date

Kyle Ivar Winter, P.E., Deputy Regional Director

October 12, 2021
Modification Signature Date

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Facility Information

Permittee
Chaparral (Virginia) Inc.
25801 Hofheimer Way
Petersburg, Virginia 23803

Responsible Official
James A. Christina
Vice President and General Manager

Facility
Chaparral (Virginia) Inc.
Church Road and Squirrel Level Road
Dinwiddie County, VA

Contact Person
Chris Melton
Environmental Manager
(859) 486-5996

County-Plant Identification Number: 51-053-0104

Facility Description: NAICS 331110 - The Chaparral (Virginia) Inc. facility is a steel scrap mini-mill. The primary steel production operations include an auto shredder, an electric arc furnace (EAF), a ladle refining furnace (LRF), two continuous casters, preheat and reheat furnaces, and a rolling mill. Steel scrap and alloying materials are received by truck. Scrap received by truck is unloaded in the scrap yard. Steel is produced by melting the scrap in the EAF and is then tapped into a refractory lined ladle and taken to the LRF where the molten steel is analyzed to determine the correct amount of heat and alloy materials needed to adjust the steel to the desired chemistry and temperature for casting. After LRF refining, the ladle is transferred to the continuous caster where the steel is poured into a tundish. The tundish then distributes the liquid steel into multiple water-cooled copper molds. The remaining steps to produce steel include reheating in natural gas-fired furnaces and rolling.

The purpose of this Title V minor modification is to incorporate changes to conditions from the underlying PSD permit, which was amended on August 19, 2021. The minor PSD amendment was issued to allow for the replacement of the current Electric Arc Furnace (EAF) capture and control system (combination furnace shaft evacuation with post-combustion shaft burners) with a Direct-shell Evacuation Control (DEC) system. There will be no changes to the existing EAF (ES1) or the existing positive-pressure baghouse (CD1) as a result of the upgrade of this capture system. The system will continue to be subject to the same CO and NOx emissions limits, continuous CO and NOx emissions rate monitoring system (CERMS) requirements, and opacity standards.

Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES1	EP1	Electric Arc Furnace	215 tons/hr	Positive Pressure Baghouse Direct-Shell Evacuation (DEC) System	CD1	Particulate	8/19/2021
ES2	EP1	Ladle Refining Furnace	215 tons/hr	Positive Pressure Baghouse	CD1	Particulate	8/19/2021
ES3	EP2	Stein Heurty preheat furnace	109 MMBtu/hr	Low NOx burners	N/A	NOx	8/19/2021
ES4	EP2	Stein Heurty reheat furnace	186 MMBtu/hr	Low NOx burners	N/A	NOx	8/19/2021
ES5	-	Scrap shredder/cascade separator	235 tons/hr	N/A	N/A	N/A	8/19/2021
ES8	EP6	Ladle and Tundish Preheaters and dryers	81.1 MMBtu/hr (total)	Low-NOx burners	N/A	NOx	8/19/2021
ES11	Fugitive	Paved/Unpaved Road and Surfaces	N/A	Dust Control Program	N/A	Particulate	8/19/2021
ES15	Fugitive	Contact Cooling Tower	8,900 gpm	N/A	N/A	N/A	8/19/2021
ES16	Fugitive	Non-contact cooling Tower	44,463 gpm	N/A	N/A	N/A	8/19/2021
ES17	EP17	Lime Silos #1-3	85,000 tons/yr	Bin vent filters	N/A	Particulate	8/19/2021
ES18	EP18	Carbon Silo	36,000 tons/yr	Bin vent filters	N/A	Particulate	8/19/2021
ES19	EP19	Alloy Unloading and Alloy/Lime/Carbon Transfer System	60,000 tons/yr	Fabric Filters	N/A	Particulate	8/19/2021
ES22	EP22	Diesel Emergency Pump at Contact Cooling Tower	358 Hp	N/A	N/A	N/A	N/A
ES23	EP23	Diesel Emergency Pump #1 at Non-Contact Cooling Tower	358 Hp	N/A	N/A	N/A	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES24	EP24	Diesel Emergency Pump #2 at Non-Contact Cooling Tower	358 Hp	N/A	N/A	N/A	N/A
ES25	EP25	Cummins 4B diesel pump (Non-Emergency) near preheat/reheat furnace stack (pre-1999)	80 Hp	N/A	N/A	N/A	8/19/2021
ES33	EP33	International DTA 466 Diesel Generator Engine (Non-Emergency) (West side, Mill Building) (pre-1999)	250 Hp	N/A	N/A	N/A	8/19/2021
ES34	EP34	Generac 9.0 L (V-Type) Natural Gas Engine (Non-Emergency) (Server Room) - 2012	149 Hp	N/A	N/A	N/A	8/19/2021
ES35	EP35	Generac OH4655 Type GT-990 Propane Emergency Engine (Communications Building) - 2009	32 Hp	N/A	N/A	N/A	N/A
ES36	EP36	Caterpillar D50-6 Diesel Emergency Engine-Generator CERMS EDG – 2012	86 Hp	N/A	N/A	N/A	N/A
ES37-ES38	EP38 (indoor fugitive emissions)	Two carbon silos vented indoors (Meltshop building)	2800 cubic feet, each	Bin vent filter	1014	Particulate	N/A

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

PROCESS EQUIPMENT REQUIREMENTS: Electric Arc Furnace and Ladle Refining Furnace; (Emission Unit ID# ES1-ES2)

1. **Process Equipment Requirements - (Emission Unit ID #ES1) - Limitations -** Particulate emissions (particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10)) from the electric arc furnace (ES1) shall be controlled by an EAF Direct-shell Evacuation Control (DEC) System and a common positive pressure baghouse (CD1) with a design control efficiency of 99.5% and a design flow rate of 1,100,000 dry standard cubic feet per minute. The common positive pressure baghouse shall be equipped with a device to continuously measure the differential pressure across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times, except during system maintenance/repairs, calibration checks, and zero and span adjustments. The common positive pressure baghouse shall be provided with adequate access for inspection.
(40 CFR 63.10686(a), 9VAC5-80-110 and Condition 4 of 8/19/2021 Permit)

2. **Process Equipment Requirements - (Emission Unit ID #ES2) - Limitations -** Particulate emissions (PM and PM10) from the ladle refining furnace (ES2) shall be controlled by a close fitting ladle roof evacuating to the common positive pressure baghouse (CD1). The common positive pressure baghouse shall be equipped with a device to continuously measure the differential pressure across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times, except during system maintenance/repairs, calibration checks, and zero and span adjustments. The common positive pressure baghouse shall be provided with adequate access for inspection.
(40 CFR 63.10686(a), 9VAC5-80-110 and Condition 5 of 8/19/2021 Permit)

3. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Limitations -** Fugitive particulate emissions (PM and PM10) from the tapping, slagging, and melting operations shall be controlled by meltshop design and a building evacuation system. The meltshop shall be designed with a building partition and movable crane doors to isolate the electric arc furnace (ES1) for enhanced containment of fugitive emissions. The building evacuation system shall exhaust to the common positive pressure baghouse (CD1). The common positive pressure baghouse shall be provided with adequate access for inspection.
(40 CFR 63.10686(a), 9VAC5-80-110 and Condition 6 of 8/19/2021 Permit)

4. **Process Equipment Requirements - (Emission Unit ID #ES1) - Limitations -** Nitrogen oxide (NOx) emissions from the electric arc furnace (ES1) shall be controlled by the use of low NOx burners. The electric arc furnace (ES1) shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 10 of 8/19/2021 Permit)

5. **Process Equipment Requirements - (Emission Unit ID #ES1) - Limitations -** Volatile organic compound (VOC) emissions from the electric arc furnace (ES1) shall be controlled through the implementation of a scrap handling, management, and inspection (HMI) plan. At a minimum, the plan shall address:

a. The name and telephone number of the on-site plant personnel who are responsible for the implementation of the plan;

b. The personnel staffing required to execute the plan and individual responsibilities of each employee in the plan; and

c. Scrap specifications designed to control inappropriate items and hazardous materials in scrap.

As of the date of this permit, the permittee has submitted, and the Piedmont Regional Office has approved, a scrap HMI plan meeting the requirements of this Condition. A copy of the approved scrap HMI plan shall be kept on site.
(9VAC5-80-110 and Condition 11 of 8/19/2021 Permit)

6. **Process Equipment Requirements - (Emission Unit ID #ES1) - Limitations -** Carbon monoxide (CO) emissions from the ducting of the electric arc furnace (ES1) shall be controlled by the use of an EAF Direct-shell Evacuation Control (DEC) system and the optimization of the operation of the EAF to minimize CO formation such that the CO emissions standards and limits of Condition 9 are complied with. The EAF DEC system shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 12 of 8/19/2021 Permit)

7. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Limitations -** Fugitive particulate emissions (PM and PM10) from the baghouse dust handling system shall be controlled by enclosure of the equipment. The baghouse dust handling system shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 9 of 8/19/2021 Permit)

8. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2, ES8) - Limitations -** The steel recycling facility shall produce no more than 1,700,000 tons of molten steel per year, calculated as the sum of each consecutive 12 month period.
(9VAC5-80-110 and Condition 36 of 8/19/2021 Permit)

9. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Limitations -** Emissions from the operation of the meltshop (ES1 and ES2) exhausting from the common positive pressure baghouse (CD1) shall not exceed the limits specified below:

Pollutant	Emission Limitation	Averaging Time	Compliance Method
CO	2580.0 lb/hr	24-hour rolling average	CERMS specified in Condition 18
CO	10.5 lb/ton	30-day rolling average	CERMS specified in Condition 18
CO	5950.0 tons/yr	Sum of each consecutive 12-month period.	CERMS specified in Condition 18
CO	7.0 lb/ton	12-month rolling average	CERMS specified in Condition 18
NO_x	150.5 lb/hr	24-hour rolling average	CERMS specified in Condition 18
NO_x	0.7 lb/ton	30-day rolling average	CERMS specified in Condition 18

Pollutant	Emission Limitation	Averaging Time	Compliance Method
NO_x	471.13 tons/yr	Sum of each consecutive 12-month period	CERMS specified in Condition 18

(9VAC5-80-110 and Conditions 14 and 17 of 8/19/2021 Permit)

10. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Limitations -** Emissions from the operation of the meltshop (ES1 and ES2) exhausting from the common positive pressure baghouse (CD1) shall not exceed the limits specified below:

		lb/hr	tpy
Particulate Matter	0.0018 gr/dscf	17.0	74.3
PM10	0.0018 gr/dscf	17.0	74.3
SO_2 based on a 24-hour average	0.1 lb/ton	21.5	85.0
VOC based on a 24-hour average	0.22 lb/ton	47.3	187.0
Lead based on a 24-hour		0.34	1.49

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Conditions 15 and 16 of 8/19/2021 Permit)

11. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Limitations -** Emissions from the operation of ES1 and ES2 exiting through the roof monitor shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	7.3	28.9
PM10	5.6	22.0

(9VAC5-80-110 and Condition 19 of 8/19/2021 Permit)

12. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Limitations -** The common positive pressure baghouse (CD1) shall not exhibit visible emissions of 3 percent opacity or greater as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(40 CFR 60.272a(a)(2), 9VAC5-80-110 and Condition 26 of 8/19/2021 Permit)

13. **Process Equipment Requirements – (Emission Unit ID ES1-ES2) – Limitations -** Visible emissions from the baghouse dust handling system shall not exhibit 10 percent opacity or greater as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(40 CFR 60.272a(b), 9VAC5-80-110 and Condition 29 of 8/19/2021 Permit)

14. **Process Equipment Requirements - (Emission Unit ID #ES1) – Limitations –** Visible emissions from the meltshop building and due solely to the operations of the electric arc furnace (ES1) shall not exhibit 6 percent opacity or greater as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(40 CFR 63.10686(b)(2), 40 CFR 60.272a(a)(3), 9VAC5-80-110 and Condition 27 of 8/19/2021 Permit)

15. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Limitations -**Visible emissions from the operation of ES1 and ES2 exiting through the rooftop monitor shall not exhibit 10 percent opacity or greater as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(40 CFR 60.272a(b), 9VAC5-80-110 and Condition 28 of 8/19/2021 Permit)

16. **Process Equipment Requirements - (Emission Unit ID #ES1) – Limitations -** The permittee shall not discharge or cause the discharge into the atmosphere from the electric arc furnace (ES1) any gases which exit from the common positive pressure baghouse (CD1) and contain in excess of 0.0052 grains of PM per dry standard cubic foot (gr/dscf). Note that the requirements of 63.10686(a) and 63.10686(b)(2) are included in Conditions 1 and 14 of this permit.
(40 CFR 63.10686(b)(1), 40 CFR 60.272a(a)(1), 9VAC5-80-110 and Condition 43 of 8/19/2021 Permit)

17. **Process Equipment Requirements - (Emission Unit ID #ES1) – Limitations -** 40 CFR 63 Subpart YYYYY - Except where this permit is more restrictive than the applicable requirement, the permittee shall operate the EAF (ES1) in compliance with all requirements of 40 CFR 63 Subparts A and YYYYY).
(40 CFR 63 Subparts A and YYYYY, 9VAC5-80-110 and Condition 46 of 8/19/2021 Permit)

18. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Monitoring -** Except during periods of acceptable monitor downtime as defined below, the permittee shall install, calibrate, operate, maintain and record the output of a continuous emission rate monitoring system (CERMS), for measuring emissions of carbon monoxide and nitrogen oxides from the operation of the meltshop (ES1 and ES2) exhausting to the common positive pressure baghouse (CD1). Each CERMS shall be installed, located, operated and maintained in accordance with the requirements of 40 CFR 60.13 and all applicable Appendixes and Performance Specifications of 40 CFR Part 60 (including 40 CFR 60, Appendices B and F). Unless otherwise approved by the Piedmont Regional Office, the flow monitor portion of the CERMS shall meet the calibration drift assessment, relative accuracy test audit and reporting provisions of 40 CFR 60, Appendix F, procedure 1. Data from the CERMS, adjusted as applicable in accordance with 40 CFR 60.13(h)(2), shall be used to determine direct compliance with the emission limits in Condition 9 on a twenty-four hour or thirty day rolling average, as applicable. In accordance with 9VAC5-50-50, the Piedmont Regional Office may approve adjustments to the CERMS requirements of Conditions 18-20 of this permit. For the purposes of this permit, acceptable monitor downtime includes reasonable periods due to (i) damage, malfunctions or breakdowns of the monitoring system that are not reasonably preventable, (ii) scheduled monitoring system maintenance based on the equipment manufacturer's recommendations, (iii) repairs of the monitoring system, and (iv) monitoring system downtime to conduct calibration drift checks, zero and span adjustments, calibration error audits, relative accuracy test audits, linearity checks, cylinder gas audits, or any other tests, checks, adjustments or

audits required by this permit, any compliance document, applicable requirement, or at the request or direction of the Piedmont Regional Office, or other applicable authority.
(9VAC5-80-110 and Condition 48 of 8/19/2021 Permit)

19. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Monitoring -** Unless the frequency of such reports has been reduced by the Piedmont Regional Office, the permittee shall submit excess emission reports for each CERMS to the Piedmont Regional Office within 30 days after the end of each calendar quarter. Excess NOx and CO emissions are defined as any 24-hour or 30-day rolling average emission rate, computed in accordance with 40 CFR 60.13(h), that exceeds the applicable emission limit in Condition 9. Each quarterly excess emission report shall contain, at a minimum, the dates included in the calendar quarter and the following (additional details of the quarterly reports are to be arranged with the Piedmont Regional Office):

    a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;

    b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), and the corrective action taken or preventative measures adopted;

    c. The date and time identifying each period during which the CERMS was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments; and

    d. When no excess emissions have occurred or the CERMS have not been inoperative, repaired or adjusted, such information shall be stated in that report.

    (9VAC5-80-110 and Condition 49 of 8/19/2021 Permit)

20. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Monitoring -** The permittee shall submit reports to the Piedmont Regional Office for each CERMS within 30 days after the end of each semi-annual period. Each semi-annual report shall include the dates included in the semi-annual period and the following:

    a. The hourly NO_X and CO emission rates, in lb/hr, as 24-hour rolling averages;

    b. Identification of days for which NO_X and CO data have not been obtained by an approved method for at least 75 percent of operating hours, reasons for not obtaining sufficient data and corrective actions taken;

    c. Identification of any times when emissions data have been excluded from the calculation of average emission rates (except as allowed by 40 CFR 60.13), justification for excluding data and a description of corrective action taken;

    d. Identification of any times when the pollutant concentration exceeded the full span of the CERMS;

e. Description of any modifications to the CERMS that could affect its ability to comply with the requirements of 40 CFR 60, Appendices B and F; and

f. Summary of the results of daily CERMS calibration drift tests and semi-annual accuracy assessments as required by 40 CFR 60, Appendix F, Procedure 1.

Semi-annual periods shall begin on January 1 and July 1 and conclude six months later.
(9VAC5-80-110 and Condition 50 of 8/19/2021 Permit)

21. **Process Equipment Requirements - (Emission Unit ID #ES1) – Monitoring - 40 CFR 63 Subpart YYYYY -** ***Pollution prevention plan (PP Plan).*** For the production of steel other than leaded steel, the permittee shall operate in accordance with the PP Plan (for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the electric arc furnace (ES1)) most recently approved by the Piedmont Regional Office. In the event the permittee desires to produce leaded steel, the permittee shall prepare and implement a PP Plan for scrap selection and inspection to minimize the amount of chlorinated plastics and free organic liquids in the scrap that is charged to the electric arc furnace (ES1). The permittee shall submit the PP Plan to the Piedmont Regional Office for approval. The permittee shall operate according to the PP Plan as submitted during the review and approval process, operate according to the approved PP Plan at all times after approval, and address any deficiency identified by the Piedmont Regional Office within 60 days following disapproval of a PP Plan. The permittee may request approval to revise the PP Plan and may operate according to the revised PP Plan unless and until the revision is disapproved by the Piedmont Regional Office. The permittee shall keep a copy of the PP Plan onsite, and the permittee shall provide training on the PP Plan's requirements to all plant personnel with materials acquisition or inspection duties. The PP Plan shall include the information in 40 CFR 63.10685 paragraphs (a)(1)(i) through (iii):

a. Specifications that scrap materials shall be depleted (to the extent practicable) of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the electric arc furnace (ES1);

b. A requirement in the permittee’s scrap specifications for removal (to the extent practicable) of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel; and

c. Procedures for determining if the requirements and specifications in (a) and (b) of this condition are met (such as visual inspection or periodic audits of scrap providers) and procedures for taking corrective actions with vendors whose shipments are not within specifications.

The requirements of this condition do not apply to the routine recycling of baghouse bags or other internal process or maintenance materials in the electric arc furnace (ES1). These exempted materials must be identified in the pollution prevention plan.
(40 CFR 63.10685(a), 9VAC5-80-110 and Condition 37 of 8/19/2021 Permit)

22. **Process Equipment Requirements - (Emission Unit ID #ES1) - Monitoring - 40 CFR 63 Subpart YYYYY -** ***Mercury requirements.*** For scrap containing motor vehicle scrap, the permittee shall procure scrap pursuant to either Condition 23 or 24 for each scrap provider, contract or

shipment. For scrap that does not contain motor vehicle scrap, the permittee shall procure the scrap pursuant to the requirements of Condition 25 for each scrap provider, contract or shipment. The permittee may have one scrap provider, contract or shipment subject to one Condition and others subject to another Condition. As of the date of the December 17, 2010 permit, the permittee has submitted a Notification of Compliance Status certifying compliance with the mercury requirements of 40 CFR 63 Subpart YYYYY by use of the option specified in Condition 23. The selection by the permittee of one of the two Conditions for procuring scrap that contains motor vehicle scrap shall not limit the ability of the permittee to change to the other Condition at its election (provided all requirements associated with making that change, including the required notifications, are met). (40 CFR 63.10685(b), 9VAC5-80-110 and Condition 38 of 8/19/2021 Permit)

23. **Process Equipment Requirements - (Emission Unit ID #ES1) - Monitoring - 40 CFR 63 Subpart YYYYY -** ***Option for approved mercury programs.*** As of the date of the December 17, 2010 permit, the permittee has certified in its Notification of Compliance Status that it participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of 40 CFR 63.10685. If the permittee purchases motor vehicle scrap from a broker, the permittee shall certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of 40 CFR 63.10685. The National Vehicle Mercury Switch Recovery Program and the Vehicle Switch Recovery Program mandated by Maine State law are EPA-approved programs under 40 CFR 63.10685(b)(2) unless and until the Administrator disapproves the program (in part or in whole) under 40 CFR 63.10685(b)(2)(iii). The permittee shall develop and maintain onsite a plan demonstrating the manner through which the permittee is participating in the EPA-approved program.

    a. The plan shall include facility-specific implementation elements, corporate- wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

    b. The permittee shall provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Piedmont Regional Office, the permittee shall provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.

    c. The permittee shall conduct periodic inspections or provide other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

    (40 CFR 63.10685(b)(2), 9VAC5-80-110 and Condition 39 of 8/19/2021 Permit)

24. **Process Equipment Requirements - (Emission Unit ID #ES1) - Monitoring - 40 CFR 63 Subpart YYYYY -** ***Option for specialty metal scrap.*** In the event the permittee elects to comply with Condition 22 using Condition 24, the permittee shall submit and certify in a notification of compliance status that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other

alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.
(40 CFR 63.10685(b)(3), 9VAC5-80-110 and Condition 40 of 8/19/2021 Permit)

25. **Process Equipment Requirements - (Emission Unit ID #ES1) - Monitoring - 40 CFR 63 Subpart YYYYY -** ***Scrap that does not contain motor vehicle scrap.*** For scrap not subject to the requirements in Conditions 23 and 24, the permittee shall certify in its notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.
(40 CFR 63.10685(b)(4), 9VAC5-80-110 and Condition 41 of 8/19/2021 Permit)

26. **Process Equipment Requirements - (Emission Unit ID #ES1) - Monitoring - 40 CFR 63 Subpart YYYYY -** ***Startup, shutdown and malfunction (SSM) plan.*** The permittee shall develop and implement a written startup, shutdown and malfunction (SSM) plan as specified in 40 CFR 63.6(e)(3). This plan shall describe, in detail, procedures for operating and maintaining the electric arc furnace (ES1) during periods of SSM and a program for corrective action for malfunctioning process and air pollution control equipment used to comply with 40 CFR 63 Subpart YYYYY. As of the date of this permit, the permittee has submitted, and the Piedmont Regional Office has approved a SSM plan meeting the requirements of this Condition. A copy of the approved SSM plan shall be kept on site.
(40 CFR 63.6(e)(3), 9VAC5-80-110 and Condition 44 of 8/19/2021 Permit)

27. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** The permittee shall monitor, operate, calibrate and maintain the common positive pressure baghouse (CD1) controlling the electric arc furnace (ES1) and the ladle refining furnace (ES2) according to the CAM plan in this permit.
(9VAC5-80-110 and 40 CFR 64.6(c))

28. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** The facility shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system. This inspection shall include observations of the physical appearance of the equipment, including, but not limited to, presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed.
(40 CFR 40 60.274a(d), CFR 64.6(c), 9VAC5-80-110 and Condition 53 of 8/19/2021 Permit)

29. **Process Equipment Requirements - (Emission Unit ID #ES1) - Monitoring - Compliance Assurance Monitoring (CAM) -** Visible emission observations shall be conducted on the common positive pressure baghouse (CD1) at least once per day when the electric arc furnace (ES1) is operating in the melting and refining period. These observations shall be taken in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A), and, for at least three 6-minute periods, the opacity shall be recorded for any points where visible emissions are observed. Shop opacity shall be determined as the average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emissions, only one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly related to the cause or location of visible emissions observed during a single incident. Records shall be maintained of any 6 minute average that is in excess of the

emission limit specified in Condition 12. Allowances shall be made for periods of meltshop down time and poor weather.
(40 CFR 60.273a(c), 40 CFR 60.273a(d), 40 CFR 64.6(c), 9VAC5-80-110 and Condition 51 of 8/19/2021 Permit)

30. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** The facility shall check and record on a once-per-shift basis the control system fan motor amperes and damper position.
(40 CFR 60.274a(b) and (c), 40 CFR 64.6(c), 9VAC5-80-110 and Condition 52 of 8/19/2021 Permit)

31. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) - Monitoring - Compliance Assurance Monitoring (CAM) -** The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9VAC5-80-110 E and 40 CFR 64.6(c))

32. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9VAC5-80-110 E and 40 CFR 64.7(b))

33. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that ES1-ES2 are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9VAC5-80-110 E and 40 CFR 64.7(c))

34. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** Upon detecting an excursion or exceedance, the permittee shall restore operation of ES1-ES2 (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any

necessary follow-up actions to return operation to within the indicator, designated Condition, or below the applicable emission limitation or standard, as applicable.
(9VAC5-80-110 E and 40 CFR 64.7(d)(1))

35. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring -Compliance Assurance Monitoring (CAM) -** Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9VAC5-80-110 E and 40 CFR 64.7(d)(2))

36. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated Conditions, the permittee shall promptly notify the Piedmont Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated Conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9VAC5-80-110 E and 40 CFR 64.7(e))

37. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Monitoring - Compliance Assurance Monitoring (CAM) -** If the number of exceedances or excursions exceeds 5 percent duration of the operating time for ES1-ES2 for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:

    a. Improved preventative maintenance practices;

    b. Process operation changes;

    c. Appropriate improvements to control methods;

    d. Other steps appropriate to correct control performance; and
    e. More frequent or improved monitoring.

    (9VAC5-80-110 E and 40 CFR 64.8(a) and (b))

38. **Process Equipment Requirements - (Emission Unit ID #ES1) - Recordkeeping - 40 CFR 63 Subpart YYYYY -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the requirements of 40 CFR 63 Subpart

YYYYY. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed the particulate matter emission standard of Condition 16 or the opacity emission standard of Condition 14;

b. The occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the required air pollution control and monitoring equipment;

c. All required maintenance performed on the air pollution control and monitoring equipment;

d. Actions taken during periods of startup or shutdown when the source exceeded the particulate matter emission standard of Condition 16 or the opacity emission standard of Condition 14 and when the actions taken are different from the procedures specified in the permittee's SSM plan; or actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the permittee's SSM plan;

e. All information necessary, including actions taken, to demonstrate conformance with the permittee's SSM plan when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed the particulate matter emission standard of Condition 16 or the opacity emission standard of Condition 14), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan (the information needed to demonstrate conformance with the SSM plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events); and

f. All notifications of compliance status and all documentation supporting the initial notifications and notifications of compliance status required by 40 CFR 63 Subpart YYYYY.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(40 CFR 63.10(b), 9VAC5-80-110 and Condition 45 of 8/19/2021 Permit)

39. **Process Equipment Requirements - (Emission Unit ID #ES1) – Recordkeeping - 40 CFR 63 Subpart YYYYY** - ***Recordkeeping and reporting requirements.*** In addition to the records required by 40 CFR 63.10, the permittee shall keep records to demonstrate compliance with the requirements for the PP Plan in Condition 21 and for mercury in Conditions 22 through 24 as applicable. The permittee shall keep records documenting compliance with Condition 25 for scrap that does not contain motor vehicle scrap.

    a. The permittee shall maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If the permittee purchases motor vehicle scrap from a broker, the permittee shall maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

    b. The permittee shall submit semiannual compliance reports to the Piedmont Regional Office for the control of contaminants from scrap according to the requirements in §63.10(e). The report shall clearly identify any deviation from the requirements in Conditions 21 through 25 and the corrective action taken. The permittee shall identify which compliance option in Condition 22 applies to each scrap provider, contract, or shipment.

    (40 CFR 63.10685(c), 9VAC5-80-110 and Condition 42 of 8/19/2021 Permit)

40. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2, ES8) – Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. The yearly production of steel in tons, calculated monthly as the sum of each consecutive 12 month period;

    b. The daily production of steel in tons;

    c. Periods during which the control system fan motor amperes operated at values exceeding ±15 percent of the values established in accordance with 40 CFR 60.274a(c);

    d. Periods during which the 6-minute average required to be recorded in Condition 29 are in excess of the emission limit specified in Condition 12; and

    e. Time, date, and findings of the monthly operational status inspections required in Condition 28; and

    f. All data obtained under Conditions 28 and 30.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (40 CFR 60.276a(c), 40 CFR 60.274a(a), 9VAC5-80-110 and Condition 56a, b, d, e and f of 8/19/2021 Permit)

41. **Process Equipment Requirements - (Emission Unit ID #ES1) - Compliance Assurance Monitoring (CAM) Recordkeeping -** The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9VAC5-80-110 and 40 CFR 64.9(b))

42. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Testing -** At an interval not to exceed five years, the facility shall conduct a performance test for SO_2, VOC and Lead from the exhaust of the common positive pressure baghouse (CD1) controlling emissions from the meltshop (ES1 and ES2) to determine compliance with the emission limitations listed in Condition 10 of this permit. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9VAC5-80-110)

43. **Process Equipment Requirements - (ES1) - Reporting - 40 CFR 63 Subpart YYYYY** - The permittee shall furnish written notification to the Piedmont Regional Office of Applicable Notifications of Compliance (NOC) containing the information specified in 40 CFR 63.9(h)(2)(i). Each NOC shall also include the applicable certifications specified at 40 CFR 63.10690(b). Each NOC shall be postmarked before the close of business on the 60th day following completion of the relevant compliance demonstration, except to the extent such time period has been adjusted by the Piedmont Regional Office, in accordance with 40 CFR 63.9(h)(2)(ii).
(40 CFR 63.10690, 40 CFR 63.9(h), 9VAC5-80-110 and Condition 54b of 8/19/2021 Permit)

44. **Process Equipment Requirements - (ES1-ES2) - Reporting - 40 CFR 63 Subpart YYYYY -** The permittee shall submit the following reports to demonstrate compliance with this permit. The content of and format of such reports shall be arranged with the Piedmont Regional Office. These reports shall include, but are not limited to:

    a. Periodic Start-up, Shutdown and Malfunction Reports containing the information specified in 40 CFR 63.10(d)(5)(i) shall be submitted if actions taken by the permittee during a startup or shutdown (and the startup or shutdown causes the electric arc furnace (ES1) to exceed the particulate matter emission standard of Condition 16 or the opacity emission standard of Condition 14), or malfunction of the electric arc furnace (ES1) (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM plan. The SSM report shall be delivered or postmarked by the 30th day following the end of each calendar half;

    b. Immediate Start-up, Shutdown and Malfunction Reports containing the information specified in 40 CFR 63.10(d)(5)(ii) shall be submitted any time an action taken by the permittee during a startup or shutdown that caused the electric arc furnace to exceed the particulate matter emission standard of Condition 16 or the opacity emission standard of Condition 14, or malfunction

(including actions taken to correct a malfunction) is not consistent with the procedures specified in the SSM plan. The permittee shall submit the report within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event.

(40 CFR 63.10690(a), 40 CFR 63.10(d), 9VAC5-80-110 and Condition 55a and b of 8/19/2021 Permit)

45. **Process Equipment Requirements - (Emission Unit ID #ES1-ES2) – Reporting –** Semi-annually the facility shall submit a written report of exceedances of the opacity standard in Conditions 12 and 14. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater from the common positive pressure baghouse (CD1) and all meltshop building opacity observations in excess of 6 percent. These reports shall also contain the periods during which the control system fan motor amperes value exceeded ±15 percent of the value established in accordance with 40 CFR 60.274a(c). Operation at these values may be considered to be unacceptable operation and maintenance of the facility.
(40 CFR 60.276a(b), (c) and (g), 9VAC5-80-110 and Condition 57 of 8/19/2021 Permit)

PROCESS EQUIPMENT REQUIREMENTS: Preheat Furnace and Reheat Furnace; (Emission Unit ID# ES3-ES4)

46. **Process Equipment Requirements - (Emission Unit ID #ES3-ES4) - Limitations -** Nitrogen oxide (NOx) emissions from the preheat furnace (ES3) and the reheat furnace (ES4) shall be controlled by the use of low NOx burners. The preheat furnace (ES3) and the reheat furnace (ES4) shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 10 of 8/19/2021 Permit)

47. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES3-ES4) - Limitations -** Emissions from the operation of the preheat furnace (ES3) and the reheat furnace (ES4) exiting through a common stack and which are based on the use of natural gas shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	3.0	9.7
PM10	3.0	9.7
Carbon Monoxide (CO)	22.1	72.4
Nitrogen Oxides (NO_x)	62.0	203.1
Sulfur Dioxide (SO_2)	0.2	0.6
Volatile Organic Compounds (VOC)	1.6	5.1

(9VAC5-80-110 and Condition 18 of 8/19/2021 Permit)

48. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES3-ES4, ES8) - Limitations -** The approved fuel for the preheat furnace (ES3) and the reheat furnace (ES4) is natural gas. The approved fuel for the miscellaneous meltshop operations (ES8) is natural gas. A change in the fuels may require a permit to modify and operate.
(9VAC5-80-110 and Condition 34 of 8/19/2021 Permit)

49. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES3-ES4) - Limitations -** The combined annual throughput of natural gas to the preheat furnace (ES3) and the reheat furnace (ES4) shall not exceed 1,934 million cubic feet per year, calculated as the sum of each consecutive 12 month period.
(9VAC5-80-110 and Condition 35 of 8/19/2021 Permit)

50. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES3-ES4) – Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to the combined yearly throughput of natural gas in million cubic feet to the preheat furnace (ES3) and the reheat furnace (ES4), calculated monthly as the sum of each consecutive 12 month period. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 56c of 8/19/2021 Permit)

PROCESS EQUIPMENT REQUIREMENTS: Scrap Shredder/Cascade Separator; (Emission Unit ID# ES5)

51. **Process Equipment Requirements - (Emission Unit ID #ES5) - Limitations -** Fugitive particulate emissions (PM and PM10) from scrap shredding (ES5) shall be controlled by the use of a water deluge system. The scrap shredding process shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 8 of 8/19/2021 Permit)

52. **Process Equipment Requirements - (Emission Unit ID #ES5) - Limitations -** Fugitive emissions from the operation of the shredder (ES5) shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	0.9	3.6
PM10	0.7	3.2

(9VAC5-80-110 and Condition 21 of 8/19/2021 Permit)

PROCESS EQUPMENT REQUIREMENTS: Ladle and Tundish Pre-heaters and Dryers (Emission Unit ID# ES8)

53. **Process Equipment Requirements - (ES8) - Limitations -** Nitrogen oxide (NOx) emissions from the miscellaneous melt shop operations (ES8) shall be controlled by the use of low NOx burners.

The miscellaneous melt shop operations (ES8) shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 10 of 8/19/2021 Permit)

54. **Process Equipment Requirements - (Emission Unit ID #ES8) - Limitations -** Fugitive emissions from the operation of the ladle and tundish pre-heaters and dryers (ES8) shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	0.9	4.0
PM10	0.9	4.0
Carbon Monoxide (CO)	2.0	8.7
Nitrogen Oxides (NO_x)	7.8	34.3
Sulfur Dioxide (SO_2)	0.1	0.2
Volatile Organic Compounds (VOC)	0.5	1.9

(9VAC5-80-110 and Condition 20 of 8/19/2021 Permit)

PROCESS EQUIPMENT REQUIREMENTS: Paved/Unpaved Roads and Surfaces (Emission Unit ID# ES11)

55. **Process Equipment Requirements - (ES11) - Limitations -** Fugitive particulate emissions (PM and PM10) from traffic and storage piles shall be controlled through the implementation of a dust management plan. The plan shall contain:

a. The name and telephone number of the on-site plant personnel who are responsible for the implementation of the plan;

b. The frequency of street cleaning for paved roads and paved parking lots;

c. The frequency of wetting for dust suppression on unpaved roads and storage piles;

d. The frequency of the application of binders to inhibit dust emissions from unpaved roads and storage piles; and

e. The enforcement of vehicular traffic speed limitations to prevent airborne dust.

As of the date of this permit, the permittee has submitted, and the Piedmont Regional Office has approved, a dust management plan meeting the requirements of this Condition. A copy of the approved dust management plan shall be kept on site.
(9VAC5-80-110 and Condition 7 of 8/19/2021 Permit)

56. **Process Equipment Requirements - (Emission Unit ID #ES11) - Limitations -** Fugitive emissions from vehicular traffic shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	10.0	5.5
PM10	2.0	1.1

(9VAC5-80-110 and Condition 24 of 8/19/2021 Permit)

57. **Process Equipment Requirements - (Emission Unit ID #ES11) - Recordkeeping –** The permittee shall maintain records of operating parameters necessary to demonstrate compliance with Condition 55-56. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110)

PROCESS EQUIPMENT REQUIREMENTS: Contact and Non-Contact Cooling Towers (Emission Unit ID# ES15-ES16)

58. **Process Equipment Requirements - (Emission Unit ID #ES15-ES16) – Limitations -** Chromium-based water treatment chemicals shall not be used in the cooling towers.
(9VAC5-80-110 and Condition 13 of 8/19/2021 Permit)

59. **Process Equipment Requirements - (Emission Unit ID #ES15) – Limitations -** Fugitive emissions from the operation of the contact cooling tower (ES15) shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	0.9	3.9
PM10	0.9	3.9

(9VAC5-80-110 and Condition 22 of 8/19/2021 Permit)

60. **Process Equipment Requirements - (Emission Unit ID #ES16) – Limitations -** Fugitive emissions from the operation of the noncontact cooling tower (ES16) shall not exceed the limits specified below:

	lb/hr	tpy
Particulate Matter	1.1	4.9
PM10	1.1	4.9

(9VAC5-80-110 and Condition 23 of 8/19/2021 Permit)

61. **Process Equipment Requirements - (Emission Unit ID #ES15-ES16) – Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to

demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Monthly total dissolved solids test results from the cooling tower water to be used to determine compliance with the emission limits in Conditions 59 and 60;

b. Material Safety Data Sheets (MSDS) for all water treatment chemicals used in the water cooling towers to be used to determine compliance with Condition 58.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 56g of 8/19/2021 Permit)

PROCESS EQUIPMENT REQUIREMENTS: Lime Silos #1-3, Carbon Silo and Alloy Unloading and Alloy/Lime/Carbon Transfer System (Emission Unit ID# ES17-ES19)

62. **Process Equipment Requirements - (Emission Unit ID #ES17) – Limitations -** Particulate emissions (PM and PM10) from the common vent from lime silos #1 and #2 and the vent from lime silo #3 (collectively ES17) shall be controlled by bin vent filters. The bin vent filters shall be provided with adequate access for inspection and maintenance and shall be properly functioning when the process is in operation.
(9VAC5-80-110 and Condition 58 of 8/19/2021 Permit)

63. **Process Equipment Requirements - (Emission Unit ID #ES17) – Limitations -** The combined annual throughput of lime to the lime silos (ES17) shall not exceed 85,000 tons per year, calculated as the sum of each consecutive 12 month period.
(9VAC5-80-110 and Condition 69 of 8/19/2021 Permit)

64. **Process Equipment Requirements - (Emission Unit ID #ES18) – Limitations -** Particulate emissions (PM and PM10) from the carbon silo (ES18) shall be controlled by a bin vent filter. The bin vent filter shall be provided with adequate access for inspection and maintenance and shall be properly functioning when the process is in operation.
(9VAC5-80-110 and Condition 59 of 8/19/2021 Permit)

65. **Process Equipment Requirements - (Emission Unit ID #ES18) – Limitations -** The annual throughput of carbon to the carbon silo (ES18) shall not exceed 36,000 tons per year, calculated as the sum of each consecutive 12 month period.
(9VAC5-80-110 and Condition 70 of 8/19/2021 Permit)

66. **Process Equipment Requirements - (Emission Unit ID #ES19) – Limitations -** Particulate emissions (PM and PM10) from the alloy unloading and alloy/lime/carbon transfer system (ES19) shall be controlled by fabric filters, partial enclosures or equivalent. The fabric filters, partial enclosures or equivalent shall be provided with adequate access for inspection and maintenance and shall be properly functioning when the process is in operation.
(9VAC5-80-110 and Condition 60 of 8/19/2021 Permit)

67. **Process Equipment Requirements - (Emission Unit ID #ES19) – Limitations -** The annual throughput of alloy to the alloy unloading and alloy/lime/carbon transfer system (ES19) shall not exceed 60,000 tons per year, calculated as the sum of each consecutive 12 month period. (9VAC5-80-110 and Condition 71 of 8/19/2021 Permit)

68. **Process Equipment Requirements - (Emission Unit ID #ES17-ES19) – Limitations -** Emissions from the operation of the emission units specified below shall not exceed the limits specified below:

Lime Silos (ES17)	lb/hr	tpy
Particulate Matter	0.1	0.3
PM10	0.1	0.2

Carbon Silo (ES18)	lb/hr	tpy
Particulate Matter	0.1	0.1
PM10	0.1	0.1

Alloy Unloading and Alloy/Lime/Carbon Transfer System (ES19)	lb/hr	tpy
Particulate Matter	2.5	1.6
PM10	1.2	0.8

(9VAC5-80-110 and Condition 73 of 8/19/2021 Permit)

69. **Process Equipment Requirements - (Emission Unit ID #ES17-ES19) – Limitations -** Visible emissions from each fabric filter and bin vent filter associated with emission units Ref. Nos. ES17, ES18 and ES19 and required by Conditions 62, 64, and 66 shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-110 and Condition 77 of 8/19/2021 Permit)

70. **Process Equipment Requirements - (Emission Unit ID #ES17-ES19) – Monitoring –** Each fabric filter and bin vent filter required by Conditions 62, 64 and 66 (associated with emission units Ref. Nos. ES17, ES18 and ES19) shall be observed visually once per week for at least a brief time period during normal operations to determine if there are any visible emissions. For the bin vent filters, the weekly observation shall be performed during the silo loading process. The presence of visible emissions shall indicate the need for prompt corrective action. The permittee shall keep a log of the observations. The log shall include the name of the observer, the date and time of the observations, the presence of visible emissions or lack thereof, and the date and time of corrective actions taken whenever visible emissions were observed.
(9VAC5-80-110 and Condition 79 of 8/19/2021 Permit)

71. **Process Equipment Requirements - (Emission Unit ID #ES17-ES19) – Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. The yearly throughput of lime, carbon and alloy, in tons, to the lime silos (ES17), carbon silo (ES18) and alloy unloading and alloy/lime/carbon transfer system (ES19), respectively, calculated monthly as the sum of each consecutive 12 month period; and

b. The visible emission observation log required by Condition 70.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 84 of 8/19/2021 Permit)

FUEL BURNING EQUIPMENT REQUIREMENTS: Emergency Diesel and Propane-Fired Engines (Emission Unit ID #ES22-ES24, ES35, ES36)

72. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES35, ES36) – Limitations –** Visible emissions from the emergency engines (ES22-ES24, ES35, ES36) shall not exceed 20 percent opacity, except for one six minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this section.
(9VAC5-80-110 and 9VAC5-50-80)

73. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES35, ES36) – Monitoring -** The permittee shall conduct an observation of the presence of visible emissions on each exhaust stack of the emergency engines (ES22-ES24, ES35, ES36) at least once a month that the units are operated. If visible emissions are observed, the permittee shall take timely corrective actions such that the systems resume operation with no visible emissions, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the systems do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the systems resume operation with visible emissions of 20 percent or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any VEE recordings and any necessary corrective actions taken.
(9VAC5-80-110)

74. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES35, ES36) – Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. Results of all visible emissions observations and visible emissions evaluations required by Condition 73.

b. Details of any corrective action taken as a result of these observations.

The above records must be kept for five years in hard copy or electronic format and must be readily accessible.
(9VAC5-80-110)

75. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES35, ES36) – Reporting** - The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 73. If the test indicates the facility is out of compliance with the standard contained in Condition 72 the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test.
(9VAC5-80-110)

FUEL BURNING EQUIPMENT REQUIREMENTS: Diesel and Natural Gas-Fired Non-Emergency Engines (Emission Unit ID# ES25, ES33, ES34)

76. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Limitations - Emission Controls -** Nitrogen oxide (NOx) emissions from the engines (Ref. Nos.: ES25, ES33 & ES34) shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.
(9VAC5-80-110 and Condition 61 of 8/19/2021 Permit)

77. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Limitations - Monitoring Devices -** Each engine (Ref. Nos. ES25, ES33 & ES34) shall be equipped with a non-resettable hour metering device to monitor the operating hours.
(9VAC5-80-110, 40 CFR 63.6625(f), 40 CFR 60.4237 and Condition 62 of 8/19/2021 Permit)

78. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Limitations – Operation of the Engine -** The permittee shall operate and maintain each engine (ES25, ES33, ES34) according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.
(9VAC5-80-110 and Condition 63 of 8/19/2021 Permit)

79. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES33) – Limitations – Operating Hours –** The standby engine (Ref. No. ES33) shall not operate more than 2000 hours per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 64 of 8/19/2021 Permit)

80. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES34) – Limitations – Operating Hours –** Each engine (Ref. Nos. ES25 & ES34) shall not operate more than 7000 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the

consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9VAC5-80-110 and Condition 65 of 8/19/2021 Permit)

81. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33) – Limitations – Fuel -** The approved fuel for the engines (Ref. Nos. ES25 & ES33) is diesel fuel. The diesel fuel shall meet the ASTM D975 specification for S15 diesel fuel oil with a maximum sulfur content per shipment of 0.0015%. A change in the fuel shall be considered a change in the method of operation and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
(9VAC5-80-110 and Condition 66 of 8/19/2021 Permit)

82. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Limitations – Fuel –** The approved fuel for the engine (Ref. No. ES34) is natural gas. A change in the fuel shall be considered a change in the method of operation and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
(9VAC5-80-110 and Condition 67 of 8/19/2021 Permit)

83. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33) – Limitations – Fuel Certification -** The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier;

    b. The date on which the diesel fuel was received;

    c. The quantity of diesel fuel delivered in the shipment;

    d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil; and

    e. The sulfur content of the diesel fuel.

    Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 81. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
    (9VAC 5-80-110 and Condition 68 of 8/19/2021 Permit)

84. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25) – Limitations – Emission Limits -** Emissions from the operation of the engine (ES25) shall not exceed the limits specified below:

PM	0.2 lb/hr	0.7 tons/yr
PM10	0.2 lb/hr	0.7 tons/yr
PM 2.5	0.2 lb/hr	0.7 tons/yr
Nitrogen Oxides (as NO_2)	2.5 lb/hr	8.7 tons/yr
Carbon Monoxide	0.6 lb/hr	1.9 tons/yr
Volatile Organic Compounds	0.2 lb/hr	0.7 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 76-78, 80, and 83.
(9VAC5-80-110 and Condition 74 of 8/19/2021 Permit)

85. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES33) – Limitations – Emission Limits -** Emissions from the operation of the engine (Ref. No. ES33) shall not exceed the limits specified below:

PM	0.6 lb/hr	0.6 tons/yr
PM10	0.6 lb/hr	0.6 tons/yr
PM 2.5	0.6 lb/hr	0.6 tons/yr
Sulfur Dioxide	0.6 lb/hr	0.6 tons/yr
Nitrogen Oxides (as NO_2)	7.8 lb/hr	7.8 tons/yr
Carbon Monoxide	1.7 lb/hr	1.7 tons/yr
Volatile Organic Compounds	0.7 lb/hr	0.7 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 76-79, 83.
(9VAC5-80-110 and Condition 75 of 8/19/2021 Permit)

86. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Limitations – Emission Limits -** Emissions from the operation of the engine (Ref. No. ES34) shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	1.0 g/HP-hr	82 ppmvd@15% O_2
Carbon Monoxide	2.0 g/HP-hr	270 ppmvd@15% O_2
Volatile Organic Compounds	0.7 g/HP-hr	60 ppmvd@15% O_2

(9VAC5-80-110, 40 CFR 60.4233(e), Table 1 to Subpart JJJJ of Part 60, and Condition 76 of 8/19/2021 Permit)

87. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Limitations – Visible Emissions Limitation –** Visible emissions from each engine exhaust (Ref. Nos. ES25, ES33 & ES34) shall not exceed 10 percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9VAC5-80-110 and Condition 78 of 8/19/2021 Permit)

88. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Limitations – Maintenance Plan -** The permittee shall operate and maintain the engines (ES25, ES33, and ES34) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide for the maintenance and operation of the engines in a manner consistent with good air pollution control practices for minimizing emissions. Operators shall be trained on proper operation and maintenance of the engines. Determination of whether such operation and maintenance procedures being used are sufficient to minimize emissions will be based on available information which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
(9VAC5-80-110, 40 CFR 60.4243(b)(i), and Condition 80 of 8/19/2021 Permit)

89. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Limitations - NSPS Subpart JJJJ Requirements -** Except where this permit is more restrictive than the applicable requirement, emission unit ES34 shall be operated in compliance with all applicable requirements of NSPS JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines for non-emergency SI lean burn natural gas engines, $100 \leq HP \leq 500$. The emission unit is considered a non-emergency stationary spark ignition engine as defined in 40 CFR 60.4248.
(9VAC5-80-110, 40 CFR 60, Subpart JJJJ, and Condition 72 of 8/19/2021 Permit)

90. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Monitoring –** The non-resettable hour meter used to continuously measure the hours of operation for each engine shall be observed by the owner with a frequency of not less than once each month the engine is operated. The owner shall keep a log of these observations. Each monitoring device shall be installed, maintained, calibrated (as appropriate) and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or

recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the engines are operating.
(9VAC5-80-110 and Condition 62 of 8/19/2021 Permit)

91. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Monitoring -** The permittee shall conduct an observation of the presence of visible emissions on each exhaust stack of the non-emergency engines (ES25, ES33, ES34) at least once a month that the units are operated. If visible emissions are observed, the permittee shall take timely corrective actions such that the systems resume operation with no visible emissions, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the systems do not exceed 10 percent opacity. The VEE shall be conducted for a minimum of six minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the systems resume operation with visible emissions of 10 percent or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any VEE recordings and any necessary corrective actions taken.
(9VAC5-80-110)

92. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. Annual hours of operation of each engine, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

    b. All fuel supplier certifications.

    c. Engine information including make, model, serial number, model year, maximum engine power (bhp), and engine displacement for each engine.

    d. For the engine generator set (Ref. No. ES34), all records required by NSPS Subpart JJJJ.

    e. The manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer for each engine.

    f. The manufacturer’s written instructions and/or the facility maintenance plan for each engine as required by Condition 88.

    g. Results of all stack tests and visible emission observations, as well as visible emissions evaluations and corrective action as required by Condition 91.

    h. Scheduled and unscheduled maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 85 of 8/19/2021 Permit)

93. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Testing – Initial Performance Tests** - Initial performance tests shall be conducted on the natural gas-fired engine (ES34) for NOx, CO, and VOC in accordance with 40 CFR 60.4244 and items a-c, below, to determine compliance with the emission standards contained in Condition 86. The tests shall be performed, reported, and demonstrate compliance no later than 180 days after ES34 commences use as a non-emergency engine. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The performance test shall include a test method performance audit (PA), where applicable. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.

    a. Emissions testing of each pollutant for the engine shall consist of three one-hour test runs under load. The average of the three runs shall be reported as the short-term emission rate for that engine.

    b. Testing shall be conducted with the engine operating at greater than 90% electrical capacity, unless multiple load band testing is approved by DEQ.

    c. Recorded information shall include, but not be limited to:

        i. Generator load/kilowatt output.

        ii. Fuel consumption.

    (9VAC5-80-110, 40 CFR 60.4243(b)(2), and Condition 81 of 8/19/2021 Permit)

94. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Testing – Visible Emissions Evaluation** - Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on each engine (Ref. Nos. ES25, ES33 & ES34). The evaluation shall be performed, reported, and demonstrate compliance no later than 180 days after the engines commence use as non-emergency engines. Should conditions prevent concurrent opacity observations, the Piedmont Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test result shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

    a. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average.

b. Testing shall be conducted with the engine(s) operating at greater than 90% electrical capacity, unless multiple load band testing is approved by DEQ.

(9VAC5-80-110 and Condition 82 of 8/19/2021 Permit)

95. **Emissions Testing** - The engines (Ref. Nos. ES25, ES33 & ES34) shall be installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9VAC5-80-110 and Condition 83 of 8/19/2021 Permit)

96. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33, ES34) – Reporting -** The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 91. If the test indicates the facility is out of compliance with the standard contained in Condition 87, the source shall also report the length of time associated with any exceedance of the standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test.
(9VAC5-80-110)

97. **Fuel Burning Equipment Requirements – (Emission Unit ID #ES25, ES33, ES34 – Initial Notification –** The permittee shall furnish written notification to the Piedmont Regional Office of the anticipated date of performance tests for the engine (Ref. ES34) and visible emission evaluations of the engine generator sets (Ref. Nos. ES24, ES33 & ES34) postmarked at least 30 days prior to such date.
(9VAC5-80-110 and Condition 86 of 8/19/2021 Permit)

FUEL BURNING EQUIPMENT REQUIREMENTS: MACT SUBPART ZZZZ (National Emission Standards for Hazardous Air Pollutants – Stationary Reciprocating Internal Combustion Engines (Emission Unit ID #ES22-ES24, ES34-ES36)

98. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22,ES23,ES24) – Limitations – MACT Subpart ZZZZ –** The permittee shall operate the diesel emergency pumps (ES22, ES23, ES24) in compliance with all applicable requirements of 40 CFR 63, Subparts A and ZZZZ for emergency CI RICE. Table 8 to Subpart ZZZZ of Part 63 shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply to the permittee.
(9VAC5-80-110 and 40 CFR 63, Subparts A and ZZZZ)

99. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33) – Limitations – MACT Subpart ZZZZ -** The permittee shall operate the non-emergency diesel engines (ES25, ES33) in compliance with all applicable requirements of 40 CFR 63, Subparts A and ZZZZ for existing non-emergency engines ≤ 300 HP located at Area Sources of HAP emissions. Table 8 to Subpart ZZZZ of Part 63 shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply to the permittee.
(9VAC5-80-110 and 40 CFR 63, Subparts A and ZZZZ)

100. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations – MACT Subpart ZZZZ -** The emergency diesel engine (ES36) shall comply with 40 CFR 63, Subpart ZZZZ by complying with the applicable requirements of 40 CFR 60, Subpart IIII. The emission unit is considered an emergency stationary internal combustion engine as defined in 40 CFR 60.4219. No further requirements of 40 CFR 63, Subpart ZZZZ apply to this engine. (9VAC5-80-110 and 40 CFR 63.6590(c))

101. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Limitations – MACT Subpart ZZZZ -** The non-emergency natural gas-fired engine (ES34) shall comply with 40 CFR 63, Subpart ZZZZ by complying with the applicable requirements of 40 CFR 60, Subpart JJJJ. No further requirements of 40 CFR 63, Subpart ZZZZ apply to this engine. (9VAC5-80-110 and 40 CFR 63.6590(c))

102. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES35) – Limitations – MACT Subpart ZZZZ -** The emergency propane-fired engine (ES35) shall comply with 40 CFR 63, Subpart ZZZZ by complying with the applicable requirements of 40 CFR 60, Subpart JJJJ. The emission unit is considered an emergency stationary internal combustion engine as defined in 40 CFR 60.4248. No further requirements of 40 CFR 63, Subpart ZZZZ apply to this engine. (9VAC5-80-110 and 40 CFR 63.6590(c))

103. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES25, ES33) – Limitations – MACT Subpart ZZZZ –** The facility shall demonstrate continuous compliance with applicable operating limitations, work practice, and management practice, standards found in National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (Table 2d to Subpart ZZZZ of Part 63). (9VAC5-80-110, 40 CFR 63.6605, and 40 CFR 63.6640(a))

104. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24) – Limitations – MACT Subpart ZZZZ -** For diesel emergency pumps (ES22-ES24), any operation other than emergency operation as specified in 40 CFR 63.6640(f)(1), maintenance and testing as specified in 40 CFR 63.6640(f)(2)(i), and operation in non-emergency situations for 50 hours per year, as specified in 40 CFR 63.6640(f)(4), shall be prohibited. (9VAC5-80-110 and 40 CFR 63.6640(f))

105. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES25, ES33) - Limitations – MACT Subpart ZZZZ -** As required by 40 CFR 63.6603(a) for an existing stationary RICE located at an area source of HAP emissions, the facility shall, as a minimum:

    a. Change oil and filter every 500 hours of operation or annually, whichever comes first, for the engine;

    b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

    c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The permittee has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2d(4). If an emergency engine (ES22-ES24) is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d(4), or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State, or local law under which the risk was deemed unacceptable.
(9VAC5-80-110, 40 CFR 63.6603(a), and Table 2d(4) of Subpart ZZZZ to Part 63)

106. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24) - Limitations – MACT Subpart ZZZZ – Maintenance Plan** – The permittee shall operate and maintain the diesel emergency pumps (ES22-ES24) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide for the maintenance and operation of the engines in a manner consistent with good air pollution control practices for minimizing emissions. Operators shall be trained on proper operation and maintenance of the engines. Determination of whether such operation and maintenance procedures being used are sufficient to minimize emissions will be based on available information which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
(9VAC5-80-110, 40 CFR 63.6605(b), 40 CFR 63.6625(e)(1)), and 40 CFR 63.6640(a))

107. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24) – Limitations – MACT Subpart ZZZZ** – The emergency diesel pumps (ES22-ES24) shall each be equipped with a non-resettable hour meter.
(9VAC5-80-110 and 40 CFR 63.6625(f))

108. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24, ES25, ES33) - Limitations – MACT Subpart ZZZZ – Engine Startup –** The permittee shall minimize each emergency engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
(9VAC5-80-110 and 40 CFR 63.6625(h))

109. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES22-ES24) – Recordkeeping – MACT Subpart ZZZZ** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. The reason for operation and hours of operation for each emergency diesel pump (ES22-ES24), including hours spent for non-emergency operation, calculated monthly as the sum of each consecutive 12 month period.

b. Records of oil and filter changes and inspections of air cleaners, hoses, and belts, as they occur.

c. The occurrence and duration of each malfunction of each emergency diesel pump (ES22-ES24).

d. A log of actions taken during periods of malfunction to minimize emissions, including any corrective actions; All required maintenance performed on the emergency diesel pumps (ES22-ES24) to demonstrate the unit was operated and maintained in accordance with the maintenance plan, including the required work practices in Condition 106.

These records shall be kept in hard copy or electronic format for the most recent five years, and must be readily accessible for inspection by the DEQ.
(9VAC5-80-110, 40 CFR 63.6655, and 40 CFR 63.6660)

110. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES25, ES33) – Recordkeeping - MACT Subpart ZZZZ -** The facility shall maintain records documenting conformance with applicable operating limitations, work practice, and management practice standards found in National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (Table 2d to MACT, Subpart ZZZZ). These records shall include but are not limited to:

a. Records of oil and filter changes and inspections of air cleaners, hoses, and belts, as they occur.

b. Records of maintenance done on the engine which demonstrates that the engine is operated or maintained according to the manufacturer's emission related operation and maintenance instructions or your own maintenance plan for minimizing emissions and operating the engine in a manner consistent with good air pollution control practices.

c. Records of occurrence and duration of each malfunction of operation and the corrective actions taken to minimize the emissions and restore the malfunctioning engine.

These records shall be kept in hard copy or electronic format for the most recent five years, and must be readily accessible for inspection by the DEQ.
(9VAC5-80-110, 40 CFR 63.6655, and 40 CFR 63.6660)

FUEL BURNING EQUIPMENT REQUIREMENTS: NSPS SUBPART IIII (New Source Performance Standards – Stationary Reciprocating Compression Ignition Internal Combustion Engines (Emission Unit ID #ES36)

111. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations - NSPS Subpart IIII Requirements -** Except where this permit is more restrictive than the applicable requirement, emission unit ES36 shall be operated in compliance with all applicable requirements of NSPS IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The emission unit is considered an emergency stationary compression ignition engine as defined in 40 CFR 60.4219.
(9VAC5-80-110 and 40 CFR 60, Subpart IIII)

112. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations - NSPS Subpart IIII –** The emergency diesel engine (ES36) shall have a non-resettable hour meter.
(9VAC5-80-110 and 40 CFR 60.4209(a))

113. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations - NSPS Subpart IIII Requirements -** The engine must meet the emission standards of 40 CFR 60.4202(a)(2) over the entire life of the engine.
(9VAC5-80-110, 40 CFR 60.4205, and 40 CFR 60.4206)

114. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations - NSPS Subpart IIII Requirements –** The permittee shall use diesel fuel for the diesel emergency engine (ES36) that meets the requirements of 40 CFR 1090.305 for ultra-low sulfur diesel (ULSD) fuel, with a sulfur content of no more than 0.0015%.
(9VAC5-80-110 and 40 CFR 60.4207(b))

115. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations – NSPS Subpart IIII -** The facility shall operate and maintain the emergency diesel engine (ES36) according to the manufacturer's emission-related written instructions, as well as meet the requirements as specified in 40 CFR Parts 89, 94, and 1068, as applicable. Adjustments to the settings on the diesel emergency engine must be performed according to the manufacturer's instructions, otherwise the engine will be out of compliance. If the emergency diesel engine is not operated or maintained according to the manufacturer's emission related instructions, the engine will be considered a non-certified engine and the facility must demonstrate compliance by:

    a. Developing a maintenance plan and keeping records of the conducted maintenance on the engine.

    b. Maintaining and operating the engine in a manner consistent with good air pollution control practice for minimizing emissions.

    c. Conducting an initial performance test within 1 year of engine start-up to demonstrate compliance.

    (9VAC5-80-110 and 40 CFR 60.4211(a) and (g))

116. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Limitations – NSPS Subpart IIII** – For the emergency diesel engine (ES36), any operation other than emergency operation as specified in 40 CFR 60.4211(f)(1), maintenance and testing as specified in 40 CFR 60.4211(f)(2)(i), and operation in non-emergency situations for 50 hours per year, as specified in 40 CFR 60.4211(f)(3), shall be prohibited.
(9VAC5-80-110 and 40 CFR 60.4211(f))

117. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES36) – Recordkeeping – NSPS Subpart IIII -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records

shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. The reason for operation and hours of operation for the emergency diesel engine (ES36), including hours spent for non-emergency operation, calculated monthly as the sum of each consecutive 12 month period.

b. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement.

c. Maintenance conducted on the engine.

d. Copies of performance testing.

These records shall be kept in hard copy or electronic format for the most recent five years, and must be readily accessible for inspection by the DEQ.
(9VAC5-80-110 and 40 CFR 60.4214)

FUEL BURNING EQUIPMENT REQUIREMENTS: NSPS SUBPART JJJJ (New Source Performance Standards – Stationary Reciprocating Spark Ignition Internal Combustion Engines) (Emission Unit ID #ES34, ES35)

118. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Limitations - NSPS Subpart JJJJ –** The permittee shall operate the natural gas-fired engine (ES34) in compliance with all applicable requirements of 40 CFR 60 Subparts A and JJJJ for new non-emergency engines. The emission unit is considered a non-emergency stationary spark ignition engine as defined in 40 CFR 60.4248. Table 3 of 40 CFR 60 Subpart JJJJ shows which parts of the General Provisions in 40 CFR 60.1 through 60.19 apply to the permittee.
(9VAC5-80-110 and 40 CFR 60, Subparts A and JJJJ)

119. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES35) – Limitations - NSPS Subpart JJJJ Requirements -** Except where this permit is more restrictive than the applicable requirement, emission unit ES35 shall be operated in compliance with all applicable requirements of 40 CFR 60 Subparts A and JJJJ for emergency engines. The emission unit is considered an emergency stationary spark ignition engine as defined in 40 CFR 60.4248. Table 3 of 40 CFR 60 Subpart JJJJ shows which parts of the General Provisions in 40 CFR 60.1 through 60.19 apply to the permittee.
(9VAC5-80-110 and 40 CFR 60, Subpart JJJJ)

120. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES35) – Limitations - NSPS Subpart JJJJ –** The propane-fired emergency engine (ES35) shall have a non-resettable hour meter.
(9VAC5-80-110 and 40 CFR 60.4237)

121. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) - Limitations – NSPS Subpart JJJJ –** The facility shall operate and maintain the natural gas-fired non-emergency engine (ES34) according to the manufacturer's emission-related written instructions, as well as meet the

applicable requirements as specified in 40 CFR Part 1068, Subparts A through D. Adjustments to the settings on the natural gas-fired non-emergency engine must be performed according to the manufacturer's instructions, otherwise the engine will be out of compliance. :
(9VAC5-80-110 and 40 CFR 60.4243)

122. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES35) - Limitations – NSPS Subpart JJJJ – Maintenance Plan –** The facility shall operate and maintain the propane-fired emergency engine (ES35) according to the manufacturer's emission-related written instructions, as well as meet the requirements as specified in 40 CFR Parts 90 and 1068, as applicable. Adjustments to the settings on the propane-fired emergency engine must be performed according to the manufacturer's instructions, otherwise the engine will be out of compliance. If the propane-fired emergency engine is not operated or maintained according to the manufacturer's emission related instructions, the engine will be considered a non-certified engine and the facility must demonstrate compliance by:

    a. Developing a maintenance plan and keeping records of the conducted maintenance on the engine.

    b. Maintaining and operating the engine in a manner consistent with good air pollution control practice for minimizing emissions.

    c. Conducting an initial performance test within 1 year of engine start-up to demonstrate compliance.

    (9VAC5-80-110 and 40 CFR 60.4243(a) and (f))

123. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES35) – Limitations – NSPS Subpart JJJJ -** For emergency engine (ES35), any operation other than emergency operation as specified in 40 CFR 60.4243(d)(1), maintenance and testing as specified in 40 CFR 60.4243(d)(2)(i), and operation in non-emergency situations for 50 hours per year, as specified in 40 CFR 60.4243(d)(3), shall be prohibited.
(9VAC5-80-110 and 40 CFR 60.4243(d))

124. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES34) – Recordkeeping – NSPS Subpart JJJJ -** The permittee shall maintain records documenting conformance with applicable operating limitations, work practice, and management practice standards found in the New Source Performance Standards 40 CFR 60 Subpart JJJJ for Spark Ignition Stationary Engines. These records shall include but are not limited to:

    a. Records of maintenance conducted on the natural gas-fired non-emergency engine (ES34) which demonstrate the engine is being operated and maintained according to the manufacturer's emission related written instructions.

    b. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement.

c. Documentation that the engine(s) meets the emission standards identified in Table 1 to Subpart JJJJ of Part 60.

d. Records of all notifications and supporting documentation that is submitted to comply with 40 CFR 60, Subpart JJJJ.

These records shall be kept in hard copy or electronic format for the most recent five years, and must be readily accessible for inspection by the DEQ.
(9VAC5-80-110, 40 CFR 60.4245)

125. **Fuel Burning Equipment Requirements - (Emission Unit ID #ES35) – Recordkeeping – NSPS Subpart JJJJ** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. The reason for operation and hours of operation for each emergency engine (ES35), including hours spent for non-emergency operation, calculated monthly as the sum of each consecutive 12 month period;

b. Maintenance conducted on the engine.

c. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.

d. If the stationary SI internal combustion engine is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets emission standards.

e. All notifications submitted to comply with NSPS Subpart JJJJ and all documentation supporting any notification.

These records shall be kept in hard copy or electronic format for the most recent five years, and must be readily accessible for inspection by the DEQ.
(9VAC5-80-110 and 40 CFR 60.4245)

Facility Wide Conditions

126. **Facility Wide Conditions - Limitations -** Regardless of the emission limitations listed in Conditions 9-11, 43 , 52, 53, 56, 59 and 60, facility wide emissions from all permitted Article 8 emission units shall not exceed:

	lb/hr	tpy
Particulate Matter	42.3	136.0
PM10	31.6	123.5

	lb/hr	tpy
Sulfur Dioxide (SO_2)	21.8	85.8
Nitrogen Oxides (NOx)	249.8	708.53
Carbon Monoxide (CO)	2604.1	6031.1
Volatile Organic Compounds (VOC)	49.4	194.0
Lead	0.34	1.49

(9VAC5-80-110 and Condition 25 of 8/19/2021 Permit)

127. **Facility Wide Conditions – Limitations -** Visible emissions from (ES3-ES5, ES8 and ES15-ES16) shall not exceed 20 percent opacity, except for one six-minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this section.
(9VAC5-80-110 and 9VAC5-50-80)

128. **Facility Wide Conditions – Limitations -** At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9VAC5-80-110 and Condition 90 of 8/19/2021 Permit)

129. **Facility Wide Conditions – Monitoring -** The permittee shall conduct an observation of the presence of visible emissions on the exhaust of the baghouse dust handling system associated with ES1 and ES2, on the meltshop building due solely from the operations of ES1, the exhaust of the

roof monitor associated with ES1 and ES2 and the exhaust of ES3-5, ES8, ES15 and ES16, at least once a month that the units are operated. If visible emissions are observed, the permittee shall take timely corrective actions such that the systems resume operation with no visible emissions, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the systems do not exceed each applicable opacity limit (Conditions 12, 13, 14, and 15). The VEE shall be conducted for a minimum of six minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the systems resume operation with visible emissions at or below each applicable opacity limit. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any VEE recordings and any necessary corrective actions taken.
(9VAC5-80-110)

130. **Facility Wide Conditions - Monitoring -** The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.
(9VAC5-80-110 and Condition 47 of 8/19/2021 Permit)

131. **Facility Wide Conditions - Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. Continuous monitoring system calibrations and calibration checks, percent operating time and excess emissions, and adjustments and maintenance preformed on continuous monitoring systems and devices; and

    b. Information required in each excess emission report and continuous monitoring system semi-annual report as required in this permit.

    c. The results of the monthly visible emission surveys required by Condition 129 and details of any corrective action taken as a result of these inspections.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-110 and Condition 56h and i of 8/19/2021 Permit)

132. **Facility Wide Conditions – Testing -** If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)

133. **Facility Wide Conditions - Reporting -** The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition 91. If the test indicates the facility is out of compliance with the standard contained in Conditions 13-15 and Condition 127, the source shall also report the length of time associated with any exceedance of the standard and the corrective

actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test.
(9VAC5-80-110)

Insignificant Emission Units

134. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720 B)	Rated Capacity (9VAC5-80-720 C)
ES12	Shredder Conveyors Transfer points, and storage piles	9VAC5-80-720 B	PM/PM10	N/A
ES20	Solvent degreasing operations	9VAC5-80-720 B	VOC	80 gallon
ES21	Miscellaneous natural gas fired combustion units	9VAC5-80-720 C	PM, PM10, SO_x, NO_x, CO, VOC	< 10 MMBtu/hr each
ES26, ES27, ES28	Above ground Fuel and Oil storage tanks	9VAC5-80-720 B	VOC	N/A
ES30	Continuous Caster	9VAC5-80-720 B	PM/PM10	N/A
ES31	Rolling Mill	9VAC5-80-720 B	PM/PM10	N/A
ES32	Lancing Station	9VAC5-80-720 B	PM/PM10	N/A
INSIG1	Product Marking	9VAC5-80-720 B	VOC	N/A
INSIG2	Miscellaneous Painting	9VAC5-80-720 B	PM/PM10 VOC	N/A
INSIG3	Miscellaneous Scrap loading/unloading	9VAC5-80-720 B	PM/PM10	N/A
INSIG4	Metal Cutting	9VAC5-80-720 B	PM/PM10	N/A
INSIG5	Mill Scale Processing	9VAC5-80-720 B	PM/PM10	N/A

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

Permit Shield & Inapplicable Requirements

135. **Permit Shield & Inapplicable Requirements -** Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
NA	--	No inapplicable requirements were identified in the Title V permit application.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9VAC5-80-140)

General Conditions

136. **General Conditions - Federal Enforceability -** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-110)

137. **General Conditions - Permit Expiration**

a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.

d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.

e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

138. **General Conditions -Recordkeeping and Reporting -** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the permit, and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-110)

139. **General Conditions -Recordkeeping and Reporting -** Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9VAC5-80-110)

140. **General Conditions -Recordkeeping and Reporting** - The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and

b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

i. Exceedances of emissions limitations or operational restrictions;

ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."
(9VAC5-80-110)

141. **General Conditions - Annual Compliance Certification -** Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9VAC5-80-110, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9VAC5-80-110)

142. **General Conditions - Permit Deviation Reporting -** The permittee shall notify the Piedmont Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. The occurrence should also be reported in the next semiannual compliance monitoring report pursuant to Condition 140 of this permit.
(9VAC5-80-110 F. 2)

143. **General Conditions - Failure/Malfunction Reporting -** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Piedmont Regional Office such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Piedmont Regional Office.
(9VAC5-80-110 and 9VAC5-20-180)

144. **General Conditions - Failure/Malfunction Reporting -** The emission units that have continuous monitors subject to 9VAC5-50-50 C are not subject to the 14 day written notification.
(9VAC5-20-180 and 9VAC5-50-50)

145. **General Conditions - Failure/Malfunction Reporting -** The emission units subject to the reporting and the procedures of 9VAC5-50-50 C are listed below:

- ES1 and ES2: Melt shop Operations

(9VAC5-80-110, 9VAC5-20-180 C and 9VAC5-50-50)

146. **General Conditions - Failure/Malfunction Reporting -** Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board semiannually. All semiannual reports shall be postmarked by the 30th day

following the end of each calendar semiannual period (June 30th and January 30th). All reports shall include the following information:

a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9VAC5-80-110, 9VAC5-20-180 C, and 9VAC5-50-50)

147. **General Conditions - Severability -** The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-110)

148. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-110)

149. **General Conditions - Need to Halt or Reduce Activity not a Defense -** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-110)

150. **General Conditions - Permit Modification -** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC80-110, 9VAC5-80-190, and 9VAC5-80-260)

151. **General Conditions - Property Rights -** The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-110)

152. **General Conditions - Duty to Submit Information -** The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC5-80-110)

153. **General Conditions - Duty to Submit Information -** Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G.
(9VAC5-80-110)

154. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350.
(9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

155. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-80-110 and 9VAC5-50-90)

156. **General Conditions - Startup, Shutdown, and Malfunction -** At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (9VAC5-80-110 and 9VAC5-50-20 E)

157. **General Conditions - Alternative Operating Scenarios -** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1. (9VAC5-80-110)

158. **General Conditions - Inspection and Entry Requirements -** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110)

159. **General Conditions - Reopening for Cause -** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.

(9VAC5-80-110)

160. **General Conditions - Permit Availability -** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9VAC5-80-110 and 9VAC5-80-150)

161. **General Conditions - Transfer of Permits**

a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.

b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.

c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9VAC5-80-110 and 9VAC5-80-160)

162. **General Conditions - Permit Revocation or Termination for Cause -** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-110, 9VAC5-80-190 C, and 9VAC5-80-260)

163. **General Conditions - Duty to Supplement or Correct Application -** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall,

upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC5-80-110 and 9VAC5-80-80 E)

164. **General Conditions - Stratospheric Ozone Protection -** If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9VAC5-80-110 and 40 CFR Part 82)

165. **General Conditions - Asbestos Requirements -** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9VAC5-60-70 and 9VAC5-80-110)

166. **General Conditions - Accidental Release Prevention -** If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9VAC5-80-110 and 40 CFR Part 68)

167. **General Conditions - Changes to Permits for Emissions Trading -** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-110)

168. **General Conditions - Emissions Trading -** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

    (9VAC5-80-110)